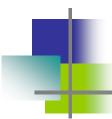




Delivering Environmental Data to Users Worldwide

Paul Seymour
GEONETCast Americas Technical Lead
NOAA's Satellite and Information Service





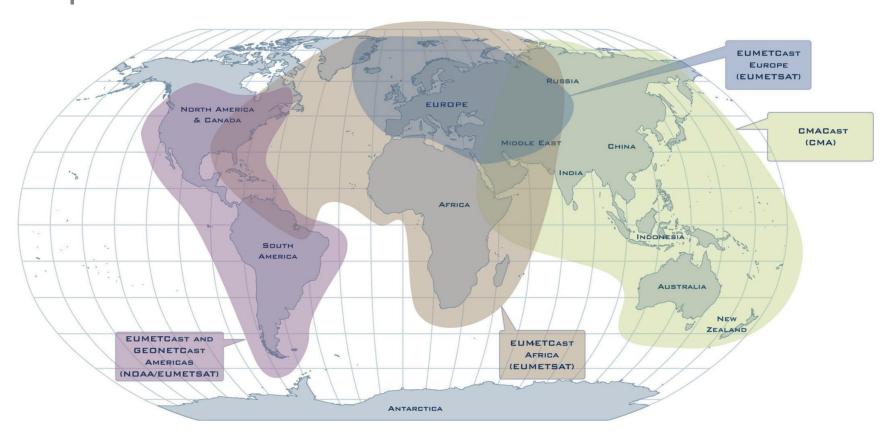
GEONET Cast: Description

- A satellite-based data and product distribution network:
 - Low cost, stand alone, off-the-shelf reception stations.
 - 3 regional broadcasts make up the global GEONETCast system.
- Users can discover products available over GEONETCast by searching the GEONETCast Product Navigator through the EUMETSAT EO or GEO Portal
- Provide near-global coverage with established data exchange between regional broadcasts.
 - CMA (CMACast, over Asia and western Pacific),
 - EUMETSAT (EUMETCast, over Europe, Africa, and Americas)
 - NOAA (GEONETCast Americas, over the Americas and Caribbean)

Delivering Environmental Data to Users Worldwide



GEONETCast: Global Coverage

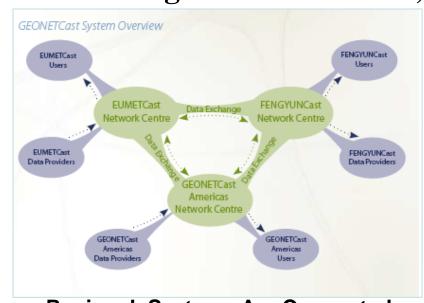






GEONET Cast: Details

- · High availability, low latency data and product delivery to Users;
- Particularly applicable in areas of poor telecommunications infrastructure or where there is risk of damage due to disasters;
- Well-established mechanism for Users to request the inclusion of additional data or products;
- Ability to receive products generated by content providers in other regions.



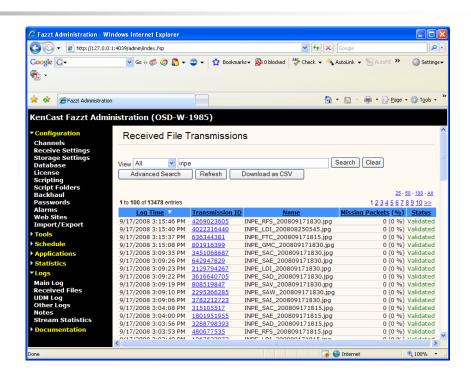
Regional Systems Are Connected





GEONET Cast: Details

- Receiving stations use lowcost, off the shelf DVB-S broadcast technology
- Receive station cost ~
 \$2,000 \$3,000;
- Small or no recurring licence costs or subscription fees
- No internet connection required at User stations.



Kencast, Inc. Fazzt Client Application Received File Transmission Screen on GEONETCast Americas Receive Station





GEONET Cast Americas - Receive Station



- Satellite antenna ~2.4 m

- DVB-S receiver card or box



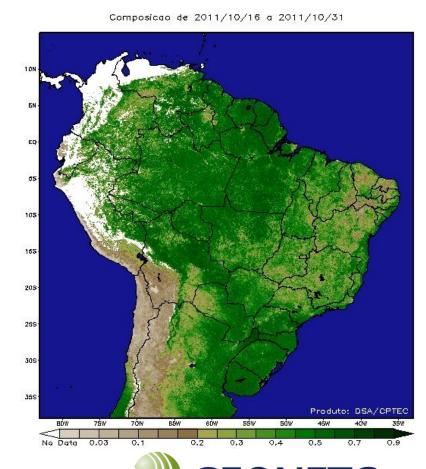






GEONETCast: Water Resource Management

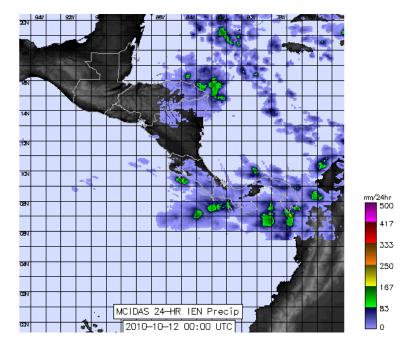
- Water Resource Mgmt.
 - Agriculture Products
 - Drought Monitoring
 - Vegetation
 - Soil Moisture
 - Precipitation
- Example (At right):
 - Vegetation Index (NDV)
 from INPE/CPTEC in
 Brazil from AVHRR and
 MODIS





GEONETCast: Hydrological Disaster Management

- Disaster Application Examples:
 - Auxiliary dissemination mechanism for the International Disaster Charter "Space and Major Disasters"
 - Precipitation Forecast for Disaster Preparedness for Floods and Landslides
 - Portable GEONETCast
 Americas Receiving Stations
 for disaster response and
 recovery



Costa Rica Instituto Meteorológico Nacional / National Meteorological Institute of Costa Rica (IMN) Precipitation Product



Portable GEONETCast-Americas









USB DVB-S Receiver



1.8M Flyaway Antenna (C band)



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